

41. (Amended) A method of increasing light olefin yield during conversion of oxygenates to olefins comprising:

- (a) contacting a feed including an oxygenate in a primary reactor with a small or medium pore non-zeolitic molecular sieve catalyst under first conditions effective to produce a first product including light olefins and a heavy hydrocarbon fraction including heavy hydrocarbons;
- (b) separating said light olefins from said heavy hydrocarbon fraction;
- (c) feeding at least a portion of said heavy hydrocarbon fraction to a second reactor selected from the group consisting of said primary reactor and a separate reactor; and
- (d) subjecting said portion of said heavy hydrocarbon fraction in said second reactor to second conditions effective to convert at least a portion of said heavy hydrocarbons to light olefins.

42. (Amended) A method for increasing light olefin yield during conversion of oxygenates to olefins comprising:

- (a) contacting a feed in a primary reactor with a small or medium pore non-zeolitic molecular sieve catalyst under first conditions effective to produce a first product including light olefins and a heavy hydrocarbon fraction including heavy hydrocarbons;
- (b) separating said light olefins from said heavy hydrocarbon fraction;
- (c) feeding at least a portion of said heavy hydrocarbon fraction to a separate reactor; and
- (d) contacting said at least a portion of said heavy hydrocarbon fraction with a second molecular sieve catalyst in said separate reactor under conditions effective to promote conversion of said heavy hydrocarbons to light olefins.

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43. (Amended) The method of claim 41 wherein said second reactor contains zeolite molecular sieve catalyst.

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55. (Amended) A method for increasing light olefin yield during conversion of oxygenates to olefins comprising:

- (a) contacting a feed including an oxygenate in a primary reactor with a small or medium pore non-zeolitic molecular sieve catalyst under conditions effective to produce a product including light olefins;
- (b) separating said product into said light olefins and a heavy hydrocarbon fraction including heavy hydrocarbon; and
- (c) recycling at least a portion of said heavy hydrocarbon fraction to said primary reactor.

REMARKS

Reconsideration of this application is requested. The claims presented for reconsideration are claims 41-52, 55, 56, and 58-61.

Independent claims 41, 42 and 55 have been amended to state that the catalyst is a small or medium pore catalyst as described in the paragraph bridging pages 2 and 3 of the specification. In addition, claim 43 has been amended to clarify that the zeolite catalyst is located in the second reactor according to the requirements of that claim. Accordingly, no new matter has been entered.

Claims 43 and 47 have been rejected under 35 USC 112, second paragraph, for containing terms not having proper antecedent basis. It is believed that the above amendment clarifies the claims such that proper antecedent basis is supplied for the claim terms at issue. Accordingly, Applicant requests withdrawal of the rejection.

The claims also stand rejected under 35 USC 103(a) as being unpatentable over GB 2171718 (the UK reference) in view of Kaiser (U.S. 4,677,243) and Kaiser (U.S. 4,527,001), as well as in view of German patent publication DE 3524890 (with specific reference to the